

REMARKS

Claims 1-4, and 25-37 are pending in the application. Claims 5-24 have been withdraw. Claims 1-4, 25-37 have been rejected under 35 U.S.C. § 112, first paragraph. Claims 1-4, 25-37 have been rejected under 35 U.S.C. § 103(a).

Rejections under 35 U.S.C. § 112, first paragraph

Claims 1-4 and 25-37 have been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the invention. In particular, the Office states:

Applicants have amended independent claims 1, 28 and 31 to recite that the reaction chamber is defined in part by the carrier and that a portion of the surface of the carrier is included in the reaction chamber. The specification does not provide support for such limitations. At page 16 of the specification, Applicants describe an extraction chamber, which serves as a reaction chamber. The extraction chamber is coupled to two capillaries. The chamber is defined in part by a spacer. The specification further states that the interior of the spacer defines the reaction chamber and that the spacer has a surface which can be mated with a sample carrier. This provides that the spacer defines the reaction chamber, not the sample carrier. Thus, there is no support for the sample carrier defining a portion of the reaction chamber and further, no support for the surface of the carrier being included in the reaction chamber. This is considered new matter and should be cancelled.

(Paper No. 16, p. 2-3)

Applicant traverses this rejection and maintains that no new matter is presented in the claim amendments. The claims are fully supported by the specification. For example, applicants refer the Office to the first paragraph of page 9 of the Specification, which reads as follows:

The invention can include an extraction chamber. The extraction chamber can be defined in part by the sample carrier.

(emphasis added) Applicants also refer the Office to the last paragraph on page 15 that carriers over to page 16 for further support found in the specification for the claim amendments. This portion of the specification reads as follows:

Together, the bottom of the film carrier 1505, the first orifice 1590 and the reaction area 1550 cooperate to define the extraction chamber.

(emphasis added) Furthermore, in reference to FIG. 21, the specification in the last paragraph on page 16 states:

Referring to FIG. 21E, the assembled single stage extraction device is depicted. This device includes *a spacer 2170 that defines in-part an extraction chamber 2180.* More generically, the extraction chamber 2180 can be termed a reaction chamber. The extraction chamber 2180 is coupled to first capillary 2130. The first capillary 2130 is coupled to fill port 2110. The extraction chamber 2180 is also coupled to a second capillary 2140. It can be appreciated that the spacer 2170 overlies and is aligned with the two capillary stop junction holes 2160. Thus, the interior of the spacer 2170 defines the extraction chamber 2180. The spacer 2170 includes a mating surface 2190. *The mating surface 2190 is for attachment (mating) to a biological sample carrier* (not shown in FIG. 21E), for example, a laser capture microdissection transfer film carrier.

(emphasis added) Further in reference to FIG. 21, the specification in the second paragraph of page 19 states:

A transfer film (not shown) carrying a microdissected sample can be mated with the microdissected sample film carrier mating surface 2175, thereby completing the extraction chamber 2180.

(emphasis added) Also, applicants refer the Office to the second paragraph of page 21, which states:

When ready for use, the release layer 2372 is removed from the spacer 2370 and *a sample film carrier (not shown) is mated with the microdissected sample film carrier mating surface of the*

spacer 2370 such that the microdissected sample is introduced into the extraction chamber.

(emphasis added)

The above-referenced citations are only portions of the specification that provide support for the claim amendments. Applicants believe that the above-referenced citations are not exclusive and that there is additional support in the specification. For example, applicants refer the Office to the figures of the specification, especially FIGs. 1-6, 9-11, 12-14, and 15 for additional instances of support for the claim amendments. Hence, applicants believe that no new matter has been added and that the rejection under 35 U.S.C. 112, first paragraph, should be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 1, 2, 4, 26, 28, 29, and 31-37 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,084,660 to Shartle (hereinafter "Shartle"). Claims 3, 25, 27 and 30 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Shartle as applied to claims 1, 4, 26, 28, 29 and 31-37 and further in view of U.S. Patent No. 5,627,041 to Shartle (hereinafter "Shartle '041"). Applicants traverse this rejection.

Applicants have amended independent claims 1, 28, and 31. In particular, these claims now recite that the carrier is adapted to introduce the sample to the reaction chamber upon mating the carrier to the device. This limitation is not disclosed, taught or suggested in the prior art. Therefore, applicants believe that these amendments further clarify the invention and place the application in a condition for allowance.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. MPEP §2143.

The third criteria listed above states that the prior art references must teach or suggest all the claim limitations in order to establish a prima facie case of obviousness. MPEP §2143. Applicants believe that this criterion is not met and maintain that the prior art references do not disclose, teach or suggest all of the claim limitations. For example, the prior art references do not disclose, teach or suggest a carrier. The carrier is shown throughout the specification of the present invention. For example, a carrier is shown in FIGs. 1-6 as the separate top element that is mated with the centrifuge tube. Also, a carrier is shown as element 900 in FIG. 10, and as element 1200 in FIG. 12, and as element 1505 in FIG. 15D.

The Office states that the sample port 12 of Shartle serves as a carrier and that layer 28 of Shartle provides a surface to which sample is applied. (Paper No. 16, page 3) Applicants disagree with this modification proposed by the Office. First, the carrier of the present invention has a surface adapted to have a sample attached. Hence, it seems that the Office is trying to carve out port 12 and layer 28 of Shartle and together call them an equivalent to the carrier of the present invention. This modification proposed by the Office is problematic because, even if it were an equivalent to the carrier of the present invention, the other limitations of the present invention are pieces that do not fall into place in the puzzle of the modification proposed by the Office. These pieces are limitations that are not taught or suggested in the prior art. Also, Shartle would be rendered unsatisfactory for its intended purpose as a result of the proposed modification.

One of the factual inquiries that are applied in establishing a background for obviousness is ascertaining the differences between the prior art and the claims at issue. Ascertaining the differences between the prior art and the claims at issue, however, requires considering both the invention and the prior art references as a whole. MPEP §2141.02 (emphasis added). The present invention and references must be considered as a whole and when so examined, it is clear that port 12 and surface 28 of Shartle do not (1) form a carrier (2) are not adapted to mate with a sample processing device, (3) are not adapted to mate with a sample processing device to form a reaction chamber, (3) are not adapted to mate with a sample processing device to form a reaction

chamber that is defined in part by the carrier, (4) are not adapted to mate with a sample processing device to form a reaction chamber that is defined in part by the carrier such that at least a portion of the surface that is adapted to have a biological sample attached is included in the chamber, and (5) are not adapted to introduce the sample to the reaction chamber upon mating the carrier to the device. All of these claim limitations are not disclosed, taught or suggested by the prior art. Therefore, the rejection under 35 U.S.C. §103(a) should be withdrawn.

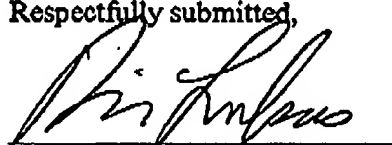
In view of the foregoing remarks, applicants respectfully submit that the application is in a condition for allowance, and action toward that end is earnestly solicited. The Office is invited to contact the applicant's representative at the number below to facilitate prosecution of this application.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time.

Respectfully submitted,

Dated: May 2, 2003

By:



Rimas T. Lukas
Registration No. 46,451

Lukas IP Group
P.O. Box 3295
Half Moon Bay, California 94019-3295
Telephone: (650) 560-0076
Facsimile: (650) 897-9944

RECEIVED
MAY 05 2003
Lukas IP Group